



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2021-0695; Project Identifier MCAI-2021-00096-R; Amendment 39-21783; AD 2021-22-10]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Leonardo S.p.a. Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for certain Leonardo S.p.a. Model A109E helicopters. This AD was prompted by reports that certain tail rotor gearbox assemblies were installed on Model A109E helicopters and those parts are not approved for installation on that helicopter model. Because those assemblies are not part of the type design for Model A109E helicopters, there are no overhaul or life limits included in the applicable maintenance manuals. This AD requires replacement of each affected tail rotor gearbox assembly with a serviceable part, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For material incorporated by reference (IBR) in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email

ADs@easa.europa.eu; Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this material on the EASA website at <https://ad.easa.europa.eu>. You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N 321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0695.

### **Examining the AD Docket**

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0695; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the EASA AD, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email [andrea.jimenez@faa.gov](mailto:andrea.jimenez@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Background**

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021-0031, dated January 22, 2021 (EASA AD 2021-0031) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for Leonardo S.p.A., formerly Finmeccanica S.p.A., AgustaWestland S.p.A., and Agusta S.p.A., Model A109E helicopters, all serial numbers up to 11160 inclusive.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Leonardo S.p.a. Model A109E helicopters. The NPRM published in the *Federal Register* on August 25, 2021 (86 FR 47427). The NPRM was prompted by reports that certain tail rotor gearbox assemblies were installed on Model A109E helicopters and those parts are not approved for installation on that helicopter model. During revisions to the Model A109E technical publications it was noted that the 90-degree tail rotor gearbox assembly, part number (P/N) 109-0440-01-115, is included in the illustrated parts catalog (IPC) for helicopters with serial numbers (S/N) up to and including S/N 11160. The IPC incorrectly identifies this part number as a replacement part for P/N 109-0440-01-119 or P/N 109-0440-01-121. The NPRM proposed to require replacement of each affected tail rotor gearbox assembly with a serviceable part, as specified in EASA AD 2021-0031.

The FAA is issuing this AD to address installation of tail rotor gearbox assembly P/N 109-0440-01-115 that is not approved for installation on Model A109E helicopters. Because P/N 109-0440-01-115 is not part of the type design for Model A109E helicopters, there are no overhaul or life limits included in the applicable maintenance manuals. If a tail rotor gearbox is not properly maintained it could fail, resulting in reduced control of the helicopter. See EASA AD 2021-0031 for additional background information.

## **Discussion of Final Airworthiness Directive**

### **Comments**

The FAA gave the public the opportunity to participate in developing this final rule. The FAA received no comments on the NPRM or on the determination of the cost to the public.

## Conclusion

The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products.

## Related Service Information Under 1 CFR Part 51

EASA AD 2021-0031 requires replacement of a tail rotor gearbox assembly P/N 109-0440-01-115 with a serviceable part. EASA AD 2021-0031 also prohibits installation of tail rotor gearbox assembly P/N 109-0440-01-115 on any Leonardo S.p.A. Model A109E helicopter.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## Costs of Compliance

The FAA estimates that this AD affects 70 helicopters of U.S. registry. The FAA estimates the following costs to comply with this AD:

### Estimated costs for required actions

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replacement	12 work-hours X \$85 per hour = \$1,020	\$82,500	\$83,520	\$5,846,400

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs may be covered under warranty, thereby reducing the cost impact on affected operators.

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

## **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

## **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **The Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

**2021-22-10 Leonardo S.p.a.:** Amendment 39-21783; Docket No. FAA-2021-0695;

Project Identifier MCAI-2021-00096-R.

#### **(a) Effective Date**

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to Leonardo S.p.a. Model A109E helicopters, certificated in any category, with an affected part as identified in European Union Aviation Safety Agency (EASA) AD 2021-0031, dated January 22, 2021 (EASA AD 2021-0031) installed.

#### **(d) Subject**

Joint Aircraft Service Component (JASC) Code: 6520, Tail Rotor Gearbox.

#### **(e) Unsafe Condition**

This AD was prompted by reports that certain tail rotor gearbox assemblies were installed on Model A109E helicopters and those parts are not approved for installation on that helicopter model. Because tail rotor gearbox assembly part number (P/N) 109-0440-01-115 is not part of the type design for Model A109E helicopters, there are no overhaul

or life limits included in the applicable maintenance manuals. The FAA is issuing this AD to address installation of tail rotor gearbox assembly P/N 109-0440-01-115 on Model A109E helicopters that do not have overhaul or life limits for that part. If a tail rotor gearbox is not properly maintained it could fail, resulting in reduced control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Requirements**

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2021-0031.

**(h) Exceptions to EASA AD 2021-0031**

(1) Where EASA AD 2021-0031 requires compliance in terms of flight hours, this AD requires using hours time-in-service.

(2) Where EASA AD 2021-0031 refers to its effective date, this AD requires using the effective date of this AD.

(3) This AD does not mandate compliance with the “Remarks” section of EASA AD 2021-0031.

**(i) No Reporting Requirement**

Although the service information referenced in EASA AD 2021-0031 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

**(j) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the

manager of the International Validation Branch, send it to the attention of the person identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(k) Related Information**

For more information about this AD, contact Andrea Jimenez, Aerospace Engineer, COS Program Management Section, Operational Safety Branch, Compliance & Airworthiness Division, FAA, 1600 Stewart Ave., Suite 410, Westbury, NY 11590; telephone (516) 228-7330; email [andrea.jimenez@faa.gov](mailto:andrea.jimenez@faa.gov).

**(l) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021-0031, dated January 22, 2021.

(ii) [Reserved]

(3) For EASA AD 2021-0031, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu); Internet [www.easa.europa.eu](http://www.easa.europa.eu). You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>.

(4) You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177. For



information on the availability of this material at the FAA, call (817) 222-5110. This material may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0695.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email [fr.inspection@nara.gov](mailto:fr.inspection@nara.gov), or go to <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on October 14, 2021.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

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